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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,220	11/17/2000	Yoichi Mori	2000-1578A	4252

7590 02/21/2003

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EXAMINER

TRAN, HIEN THI

ART UNIT PAPER NUMBER

1764

DATE MAILED: 02/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,220

Applicant(s)

MORI ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 14 is objected to because of the following informalities: In claim 14, line 1 "claim13" should be changed to --claim 13--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 14 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 14 and 21, it is unclear as to where it is supported in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 9-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 916,388 in view of EP 885,648.

With respect to claims 9-10, EP 916,388 discloses an apparatus comprising:

a solids treating means 2 for separating solids from a waste gas containing fluorine-containing compounds;

addition means 32, 41 for adding water and O₂ as a decomposition assist gas to the waste gas leaving the solids treating means 2;

a thermal decomposing means 76 that is packed with alumina 11 heated at 650-750 °C and which thermally decomposes the waste gas to which the decomposition assist gas has been added; and

an acid gas treating means 98 for removing acidic gas from the thermally decomposed waste gas and channels for connecting said means in sequence.

The apparatus of EP 916,388 is substantially the same as that of the instant claims, but is silent as to the specific type of alumina as claimed.

However, EP 885,648 discloses the conventionality of providing a thermal decomposing means packed with gamma alumina.

It would have been obvious to one having ordinary skill in the art to substitute the alumina type of EP 885,648 for the alumina type of EP 916,288 for the known and expected results of obtaining the same results in the absence of unexpected results.

With respect to claims 12 and 23, EP 916,288 discloses that the solids treating means 2 and the acidic gas treating means 98 are water scrubbers (page 5, lines 53-58; page 7, lines 34-39).

With respect to claims 11, 13-18, 20-22, 24-27, 29, EP 916,288 discloses means for controlling the treated gas (page 5, lines 23-35) downstream of the means 59 for adjusting the pressure (page 7, lines 43-48, Fig. 3). EP 885,648 discloses means for controlling the treated gas (page 5, lines 32-34).

Selecting an appropriate type of device to perform the analyzing, controlling or pressure adjusting is within the purview of one having ordinary skill in the art during routine experimentation and optimization of the system thereof, absence any unexpected result.

With respect to claims 19 and 28, EP 916,288 discloses a supply line 29 for supplying waste gas into the solids treating⁹ device 2; and a discharge line 36 for carrying the treated gas from said acidic gas treating device 98. EP 916,288 fails to disclose a bypass line interconnecting said supply line and said discharge line and having a bypass valve therein.

However, EP 916,288 discloses that the concentration of fluorine containing components in the exhaust gas supplied to and exhausted from the PFC processing apparatus are determined by chromatography. It would have been obvious to one having ordinary skill in the art to provide a bypass line with bypass valve in the modified apparatus of EP 916.288, if the exhaust gas does not contain any significant amount of contaminated components need to be removed as analyzed by the chromatography, so as to discharge the waste gas without entering the purification stage thereof and thereby to save the purification cost attendant therewith.

Response to Arguments

7. Applicant's arguments filed 1/3/03 have been fully considered but they are not persuasive.

Applicants argue that none of the catalysts disclosed on pages 6-8 of EP '648 express that the catalyst is gamma alumina. Such contention is not persuasive as EP '648 discloses that gamma alumina is one of elements for manufacturing the catalyst (page 4, lines 6-7).

Furthermore, it has been held that a disclosure in a reference is not limited to its specific illustrative examples, but must be considered as a whole to ascertain what would be realistically suggested thereby to one ordinary skill in the art. *In re Uhlig*, 54 CCPA 1300 376 F2d 320; 153 USPQ 460.

Applicants argue that none of the references discloses an air injector or a FT-IR analyzer as recited in the instant claims. Such contention is not persuasive as although EP '388 disclose a different type of analyzer and a different means for adjusting the pressure, selecting an appropriate means to perform the analyzing, controlling or pressure adjusting is within the purview of one having ordinary skill in the art during routine experimentation and optimization of the system thereof, absence any unexpected result thereof.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Imamura (5,649,985 and 6,126,906) are cited for showing state of the art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is 308-4253. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (703) 308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

Hien Tran

HT
February 20, 2003

Hien Tran
Primary Examiner
Art Unit 1764